

PCT

REQUEST

The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty.

IGE, Bern

For receiving Office use only

International Application No.

International Filing Date

Name of receiving Office and "PCT International Application"

Applicant's or agent's file reference
(if desired) (12 characters maximum)

03/064 WO ✓

Box No. I TITLE OF INVENTION New IGBT cathode design with improved safe operating area capability	
Box No. II APPLICANT	
<p>Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)</p> <p>ABB Technology AG Affolternstrasse 44 CH-8050 Zürich Schweiz</p>	
<input type="checkbox"/> This person is also inventor	
<p>Telephone No.</p> <p>Facsimile No.</p> <p>Teleprinter No.</p> <p>Applicant's registration No. with the Office</p>	
State (that is, country) of nationality: CH	State (that is, country) of residence: CH
<p>This person is applicant for the purposes of:</p> <p><input type="checkbox"/> all designated States <input checked="" type="checkbox"/> all designated States except the United States of America <input type="checkbox"/> the United States of America only <input type="checkbox"/> the States indicated in the Supplemental Box</p>	
Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)	
<p>Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)</p> <p>RAHIMO Munaf Bachweg 10 CH-5619 Uezwil Switzerland</p>	
<p>This person is:</p> <p><input type="checkbox"/> applicant only <input checked="" type="checkbox"/> applicant and inventor <input type="checkbox"/> inventor only (If this check-box is marked, do not fill in below.)</p> <p>Applicant's registration No. with the Office</p>	
State (that is, country) of nationality: GB	State (that is, country) of residence: CH
<p>This person is applicant for the purposes of:</p> <p><input type="checkbox"/> all designated States <input type="checkbox"/> all designated States except the United States of America <input checked="" type="checkbox"/> the United States of America only <input type="checkbox"/> the States indicated in the Supplemental Box</p> <p><input type="checkbox"/> Further applicants and/or (further) inventors are indicated on a continuation sheet.</p>	
Box No. IV AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE	
<p>The person identified below is hereby/has been appointed to act on behalf of the applicant(s) before the competent International Authorities as:</p> <p><input checked="" type="checkbox"/> agent <input type="checkbox"/> common representative</p>	
<p>Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)</p> <p>ABB Schweiz AG Intellectual Property (CH-LC/IP) Brown Boveri Strasse 6 CH-5400 Baden, Schweiz</p>	
<p>Telephone No. ++41 (0)58 58 58417</p> <p>Facsimile No. ++41(0)58 585 76 55</p> <p>Teleprinter No.</p> <p>Agent's registration No. with the Office</p>	
<p><input type="checkbox"/> Address for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.</p>	

Continuation of Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)*If none of the following sub-boxes is used, this sheet should not be included in the request.*

Name and address: (*Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.*)

LINDER Stefan

Stockliackerweg 6

CH-4800 Zofingen

Switzerland

This person is:

- applicant only
 applicant and inventor
 inventor only (*If this check-box is marked, do not fill in below.*)

Applicant's registration No. with the Office

State (*that is, country*) of nationality:

CH

State (*that is, country*) of residence:

CH

This person is applicant
for the purposes of:
 all designated
States all designated States except
the United States of America the United States
of America only the States indicated in
the Supplemental Box

Name and address: (*Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.*)

This person is:

- applicant only
 applicant and inventor
 inventor only (*If this check-box is marked, do not fill in below.*)

Applicant's registration No. with the Office

State (*that is, country*) of nationality:State (*that is, country*) of residence:This person is applicant
for the purposes of:
 all designated
States all designated States except
the United States of America the United States
of America only the States indicated in
the Supplemental Box

Name and address: (*Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.*)

This person is:

- applicant only
 applicant and inventor
 inventor only (*If this check-box is marked, do not fill in below.*)

Applicant's registration No. with the Office

State (*that is, country*) of nationality:State (*that is, country*) of residence:This person is applicant
for the purposes of:
 all designated
States all designated States except
the United States of America the United States
of America only the States indicated in
the Supplemental Box

Name and address: (*Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.*)

This person is:

- applicant only
 applicant and inventor
 inventor only (*If this check-box is marked, do not fill in below.*)

Applicant's registration No. with the Office

State (*that is, country*) of nationality:State (*that is, country*) of residence:This person is applicant
for the purposes of:
 all designated
States all designated States except
the United States of America the United States
of America only the States indicated in
the Supplemental Box Further applicants and/or (further) inventors are indicated on another continuation sheet.

Box No. V DESIGNATIONS

The filing of this request constitutes under Rule 4.9(a), the designation of all Contracting States bound by the PCT on the international filing date, for the grant of every kind of protection available and, where applicable, for the grant of both regional and national patents.

However,

- DE Germany is not designated for any kind of national protection
- KR Republic of Korea is not designated for any kind of national protection
- RU Russian Federation is not designated for any kind of national protection

(The check-boxes above may be used to exclude (irrevocably) the designations concerned in order to avoid the ceasing of the effect, under the national law, of an earlier national application from which priority is claimed. See the Notes to Box No. V as to the consequences of such national law provisions in these and certain other States.)

Box No. VI PRIORITY CLAIM

The priority of the following earlier application(s) is hereby claimed:

Filing date of earlier application (day/month/year)	Number of earlier application	Where earlier application is:		
		national application: country or Member of WTO	regional application:*	international application: receiving Office
item (1) 17. November 2003 (17.11.03)	03405816.4		EPA	
item (2)				
item (3)				

- Further priority claims are indicated in the Supplemental Box.

The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) (only if the earlier application was filed with the Office which for the purposes of this international application is the receiving Office) identified above as:

- all items item (1) item (2) item (3) other, see Supplemental Box

* Where the earlier application is an ARPO application, indicate at least one country party to the Paris Convention for the Protection of Industrial Property or one Member of the World Trade Organization for which that earlier application was filed (Rule 4.10(b)(ii)).

Box No. VII INTERNATIONAL SEARCHING AUTHORITY

Choice of International Searching Authority (ISA) (if two or more International Searching Authorities are competent to carry out the international search, indicate the Authority chosen; the two-letter code may be used):

ISA / EPA

Request to use results of earlier search; reference to that search (if an earlier search has been carried out by or requested from the International Searching Authority):

Date (day/month/year)	Number	Country (or regional Office)
17.11.2003	03405816.4	EPA

Box No. VIII DECLARATIONS

The following declarations are contained in Boxes Nos. VIII (i) to (v) (mark the applicable check-boxes below and indicate in the right column the number of each type of declaration):

Number of declarations

- | | | |
|---|--|---|
| <input type="checkbox"/> Box No. VIII (i) | Declaration as to the identity of the inventor | : |
| <input type="checkbox"/> Box No. VIII (ii) | Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent | : |
| <input type="checkbox"/> Box No. VIII (iii) | Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application | : |
| <input type="checkbox"/> Box No. VIII (iv) | Declaration of inventorship (only for the purposes of the designation of the United States of America) | : |
| <input type="checkbox"/> Box No. VIII (v) | Declaration as to non-prejudicial disclosures or exceptions to lack of novelty | : |

Box No. IX CHECK LIST; LANGUAGE OF FILING

This international application contains:		This international application is accompanied by the following item(s) (mark the applicable check-boxes below and indicate in right column the number of each item): 1. <input checked="" type="checkbox"/> fee calculation sheet : 2. <input type="checkbox"/> original separate power of attorney : 3. <input type="checkbox"/> original general power of attorney : 4. <input type="checkbox"/> copy of general power of attorney; reference number, if any: : 5. <input type="checkbox"/> statement explaining lack of signature : 6. <input type="checkbox"/> priority document(s) identified in Box No. VI as item(s): : 7. <input type="checkbox"/> translation of international application into (language): : 8. <input type="checkbox"/> separate indications concerning deposited microorganism or other biological material : 9. <input type="checkbox"/> sequence listing in computer readable form (indicate type and number of carriers) <ul style="list-style-type: none"> (i) <input type="checkbox"/> copy submitted for the purposes of international search under Rule 13ter only (and not as part of the international application) : (ii) <input type="checkbox"/> (only where check-box (b)(i) or (c)(i) is marked in left column) additional copies including, where applicable, the copy for the purposes of international search under Rule 13ter : (iii) <input type="checkbox"/> together with relevant statement as to the identity of the copy or copies with the sequence listing mentioned in left column : 10. <input type="checkbox"/> tables in computer readable form related to sequence listing (indicate type and number of carriers) <ul style="list-style-type: none"> (i) <input type="checkbox"/> copy submitted for the purposes of international search under Section 802(b-quater) only (and not as part of the international application) (ii) <input type="checkbox"/> (only where check-box (b)(ii) or (c)(ii) is marked in left column) additional copies including, where applicable, the copy for the purposes of international search under Section 802(b-quater) : (iii) <input type="checkbox"/> together with relevant statement as to the identity of the copy or copies with the tables mentioned in left column : 11. <input type="checkbox"/> other (specify): :	Number of items
(a) in paper form, the following number of sheets:			
request (including declaration sheets)	: 4		
description (excluding sequence listing and/or tables related thereto)	: 9		
claims	: 2		
abstract	: 1		
drawings	: 4		
Sub-total number of sheets	: 20		
sequence listing	:		
tables related thereto	:		
(for both, actual number of sheets if filed in paper form, whether or not also filed in computer readable form; see (c) below)			
Total number of sheets	: 20		
(b) <input type="checkbox"/> only in computer readable form (Section 801(a)(i))			
(i) <input type="checkbox"/> sequence listing			
(ii) <input type="checkbox"/> tables related thereto			
(c) <input type="checkbox"/> also in computer readable form (Section 801(a)(ii))			
(i) <input type="checkbox"/> sequence listing			
(ii) <input type="checkbox"/> tables related thereto			
Type and number of carriers (diskette, CD-ROM, CD-R or other) on which are contained the			
<input type="checkbox"/> sequence listing:			
<input type="checkbox"/> tables related thereto:			
(additional copies to be indicated under items 9(ii) and/or 10(ii), in right column)			

Figure of the drawings which should accompany the abstract: 1

Language of filing of the international application:

Box No. X SIGNATURE OF APPLICANT, AGENT OR COMMON REPRESENTATIVE
Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the request). 09.11.2004

ABB Technology AG

RAHIMO Munaf

ZIMMERMANN Gilbert

LINDER Stefan

1. Date of actual receipt of the purported international application:

2. Drawings:

received:

3. Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application:

not received:

4. Date of timely receipt of the required corrections under PCT Article 11(2):

5. International Searching Authority (if two or more are competent): ISA /

6. Transmittal of search copy delayed until search fee is paid

For receiving Office use only

Date of receipt of the record copy by the International Bureau: